

PARAMETER TITLE: D-Value for Bioburden on Exposed Surfaces (DS₁₂₅)

| VALUE | |
|------------|---------|
| UPPER | 0.5 hr. |
| ACCEPTABLE | 0.5 hr. |
| LOWER | 0.5 hr. |

| APPLICATION | |
|-------------|-----|
| MISSION | All |
| CATEGORY | IV |
| PLANET | All |

PARAMETER DEFINITION: Time required to destroy 90% of the microbial spore population on surfaces subjected to sterilizing dry heat at a temperature of 125°C at an absolute humidity corresponding to a relative humidity of less than 25% referenced to the standard conditions of 0°C and 760 torr pressure.

APPLICABLE SOURCE: All microbial spore populations located on spacecraft surfaces such that gas exchange can take place.

CONSTRAINTS: Specified D-value can be applied where sterilization cycle conditions stated in NPG 8020.12B have been met. Thermal response of materials must be considered in design of sterilization cycles. Project must specify method for the measurement of these parameters and make allowances for stabilization times.

REFERENCES: 1. Recommendations of PQAP Subcommittee 1A Resulting from Deliberations on July 25-26, 1968.

Planetary Protection Officer

Date